

IN THE CLAIMS:

Claims 1-10 (Previously cancelled)

Claim 11 (Currently Amended) A rotor disc assembly for use in an electrical machine, the rotor disc assembly comprising a rotor disc and at least one circumferential rotor rim mounted on the rotor disc, the rotor rim comprising at least one row of alternate magnets and laminated pole pieces comprising laminations, the laminations in each pole piece being supported by at least one uninsulated bolt having an uninsulated outer surface and which extends through the rotor disc, a clearance air gap extending the entire distance between the outer surface of the bolt and the laminations and being provided to electrically insulate the laminations from the bolt passing therethrough.

Claim 12 (Previously Added) A rotor disc as claimed in claim 11, in which the clearance is provided by mounting the laminations concentrically on the bolt in a radially spaced relationship.

Claim 13 (Previously Added) A rotor disc as claimed in claim 11, in which the laminations are bonded together to form a stack.

Claim 14 (Previously Added) A rotor disc as claimed in claim 13, in which the stack of bonded laminations is mounted concentrically on the bolt in a radially spaced relationship by the provision of insulated annular members at either end of the stack.

Claim 15 (Previously Added) A rotor disc as claimed in claim 14, in which the insulated annular members are recessed into either end of the stack.

Claim 16 (Previously Added) A rotor disc as claimed in claim 14, in which the insulated annular members are resilient.

Claim 17 (Previously Added) A rotor disc as claimed in claim 16, in which the annular members are formed from an elastomeric material.

Claim 18 (Currently amended) A rotor disc [as claimed in claim 11, further comprising] assembly for use in an electrical machine, the rotor disc assembly comprising a rotor disc and at least one circumferential rotor rim mounted on the rotor disc, the rotor rim comprising at least one row of alternate magnets and laminated pole pieces comprising laminations, the laminations in each pole piece being supported by at least one bolt which extends through the rotor disc, a clearance air gap being provided to electrically insulate the laminations from the bolt passing therethrough, and means provided on the bolt for compressing the laminated pole pieces.

Claim 19 (Previously Added) A rotor disc as claimed in claim 18, wherein the means for compressing the laminated pole pieces are resilient to maintain the correct compressive force on the laminated pole pieces throughout operation.

Claim 20 (Previously Added) A rotor disc as claimed in claim 19, wherein the means for compressing the laminated pole pieces comprise nuts and spring washers.

Claim 21 (Currently amended) A rotor disc assembly for use in an electrical machine, the rotor disc assembly comprising:

a rotor disc; and

at least one circumferential rotor rim mounted on the rotor disc, the rotor rim including at least one row of alternate magnets and pole piece assemblies, each pole piece assembly having

laminated pole pieces forming a lamination having a first end and a second end,

a first insulating member on the first end of the lamination and positioned between the lamination and the rotor disc to electrically insulate the first end of the lamination from the rotor disc,

a second insulating member on the second end of the lamination to electrically insulate the second end of the lamination,

[a] an uninsulated fastener having an uninsulated outer surface and extending through the rotor disc, the lamination, the first insulation member, and the second insulating member to attach the pole piece assembly to the rotor disc, and

a clearance air gap extending the entire distance between the outer surface of the fastener and the lamination and provided between the lamination and the fastener to electrically insulate the lamination from the bolt.

Claim 22 (Previously added) A rotor disc assembly as claimed in claim 21,
wherein

the laminated pole pieces are annular, the first insulating member is annular,
and the second insulating member is annular.

Claim 23 (Previously added) A rotor disc assembly as claimed in claim 21,
wherein

the first insulating member includes a first element that is positioned between
the lamination and the fastener to radially space the lamination from the fastener.

Claim 24 (Previously added) A rotor disc assembly as claimed in claim 23,
wherein

the second insulating member includes a second element that is positioned
between the lamination and the fastener to radially space the lamination from the
fastener.

Claim 25 (Previously added) A rotor disc assembly as claimed in claim 23,
wherein

the lamination includes a recess, and

the first element is an annular insulating ring positioned within the recess.

Claim 26 (Currently amended): A rotor disc assembly [as claimed in claim 21,]
for use in an electrical machine, the rotor disc assembly comprising:
a rotor disc; and

at least one circumferential rotor rim mounted on the rotor disc, the rotor rim including at least one row of alternate magnets and pole piece assemblies, each pole piece assembly having laminated pole pieces forming a lamination having a first end and a second end,

a first insulating member on the first end of the lamination and positioned between the lamination and the rotor disc to electrically insulate the first end of the lamination from the rotor disc,

a second insulating member on the second end of the lamination to electrically insulate the second end of the lamination,

a fastener extending through the rotor disc, the lamination, the first insulation member, and the second insulating member to attach the pole piece assembly to the rotor disc, and

a clearance air gap provided between the lamination and the fastener to electrically insulate the lamination from the bolt,

wherein the fastener is a bolt, and the second insulating member is positioned between the lamination and a nut attached to the bolt.

Claim 27 (Previously added) A rotor disc assembly as claimed in claim 26, wherein

the nut secures a spring washer to the bolt and the spring washer is positioned between the nut and the second insulating member.

Claim 28 (Previously added) A rotor disc assembly as claimed in claim 21, wherein

the laminated pole pieces are annular, the first insulating member is annular, and the second insulating member is annular,

the first insulating member includes a first element that is positioned between the lamination and the fastener to radially space the lamination from the fastener,

the second insulating member includes a second element that is positioned between the lamination and the fastener to radially space the lamination from the fastener.

Claim 29 (Previously added) A rotor disc assembly as claimed in claim 28, wherein

the lamination includes a first recess and a second recess, and

the first element is an annular insulating ring positioned within the first recess, and the second element is an annular insulating ring positioned within the second recess.

Claim 30 (Previously added) A rotor disc assembly as claimed in claim 29, wherein

the fastener is a bolt, and the second insulating member is positioned between the lamination and a nut attached to the bolt, and the nut secures a spring washer to the bolt and the spring washer is positioned between the nut and the second insulating member.